



U.S. Department
of Veterans Affairs



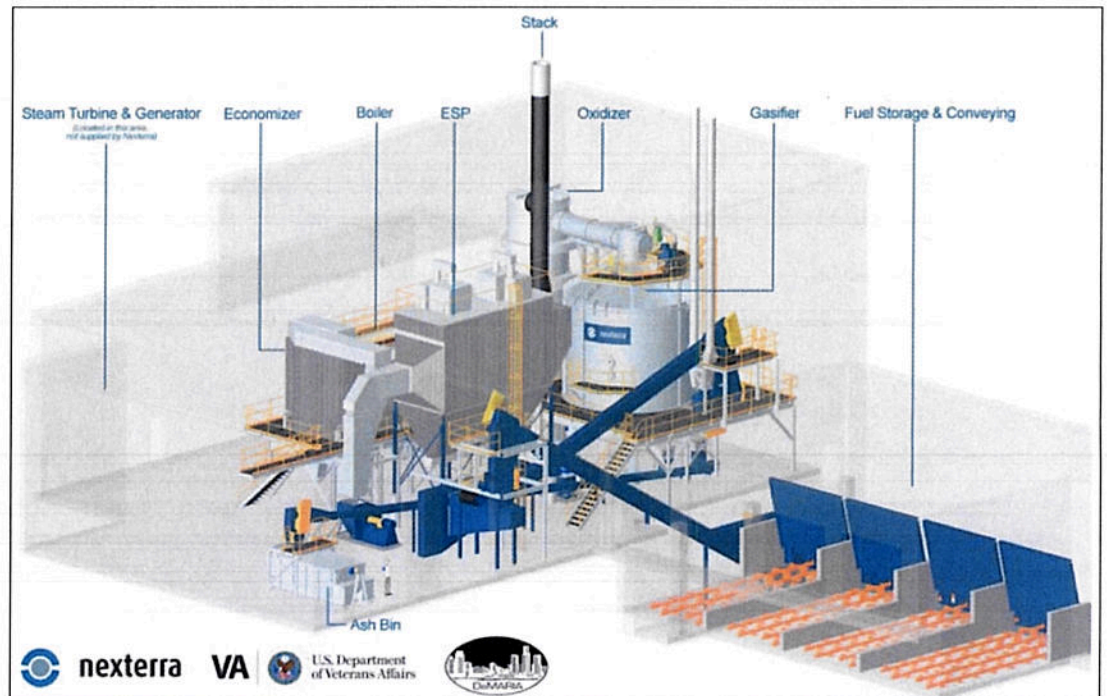
HA
Architecture | Engineering | Planning

■ Process

- Fuel delivered to fuel storage and conveying system.
- Gasifier converts woody biomass to combustible syngas.
- Clean syngas is combusted in the oxidizer.
- The hot flue gas is directed through a steam boiler to produce high pressure steam.
- Steam is then distributed to a steam turbine to produce electricity.
- Medical Center heating loads are met as a priority and excess energy is used to generate electricity.
- The electrostatic precipitator (ESP) cleans flue gas before exhausting it out the stack.

■ Benefits

- Reduced dependence on fossil fuel
- Alternative fuel source capability
- Independence from natural gas grid
- Significant greenhouse gas reduction
- Ultra low air emissions
- Supports local business by using locally sourced wood waste



3D Illustration of the Nexterra Biomass Gasification Combined Heat and Power (CHP) System at the US Department of Veterans Affairs Medical Center in Battle Creek, Michigan.

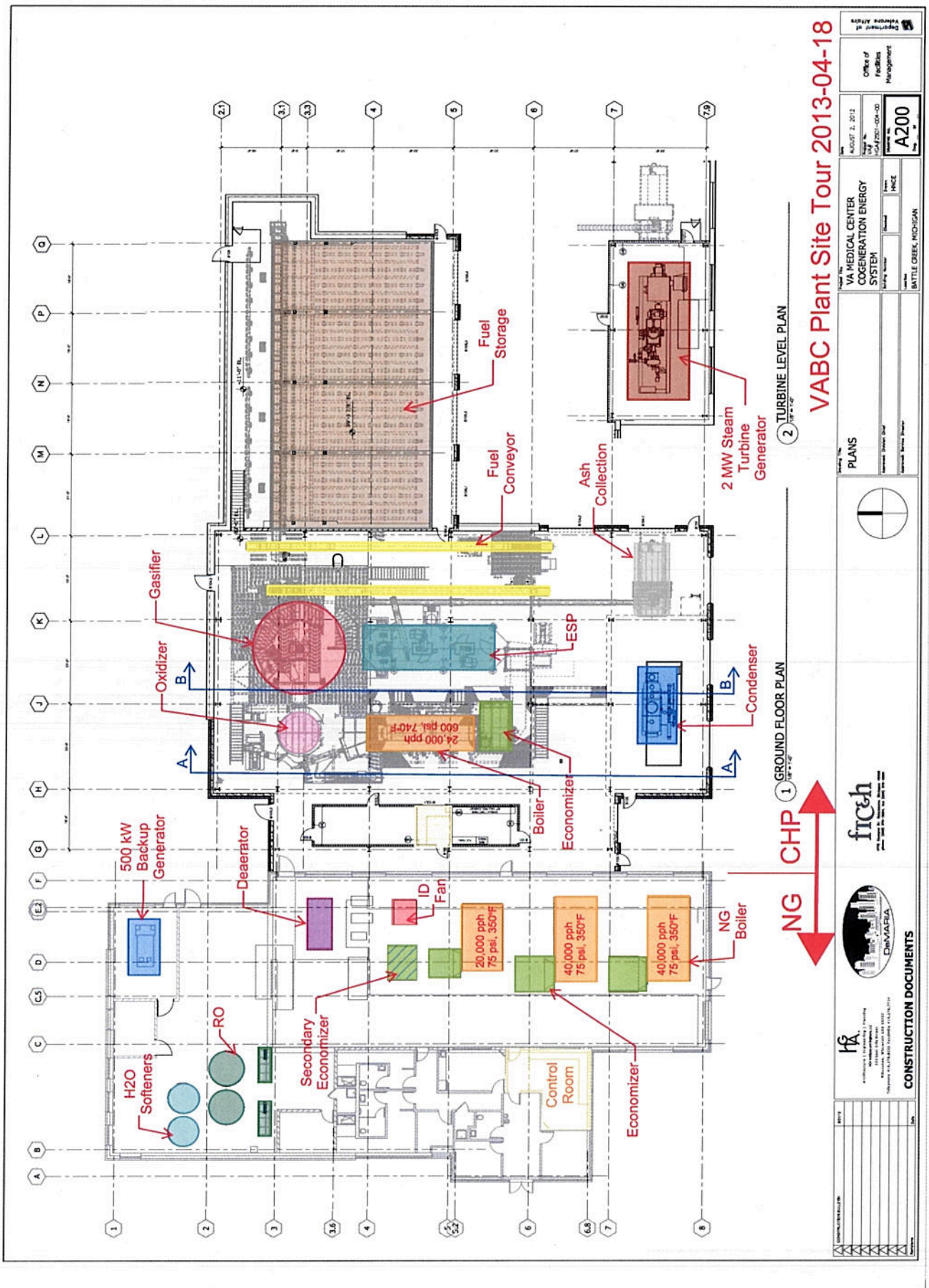
"Nexterra's planning and coordination through the design process on this VA biomass project has been exceptional. Although we have not yet tested the system, I'm certain that with Nexterra's oversight and quality control during the installation process, this system will meet and possibly exceed the VA's expectations. Nexterra has been very professional during the entire process."

- Mark Brimmeier, Vice President, Healthcare & University Groups, DeMaria Building Company



SYSTEM ILLUSTRATION

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VA MEDICAL CENTER COGENERATION ENERGY SYSTEM	Project No. AUGUST 2, 2012 Project Name VAMC A200-00-00
PLANS	Sheet No. A200
Prepared By: BAILEY, CREEK, MOORE Checked By: BAILEY, CREEK, MOORE Date: 11/01/12	Scale: 1" = 10'
CONSTRUCTION DOCUMENTS	